

Notice of Allowability

Application No.

10/632,273

Examiner

Russell M. Kobert

Applicant(s)

FARNWORTH ET AL.

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Response filed 6 October 2005.
2. ☒ The allowed claim(s) is/are 31-47 and 49-59.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 1005, 06/04, 07/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Reasons For Allowance

1. The following is an examiner's statement of reasons for allowance:

The combination of limitations disclosed in base claims 31 comprising:

A projection on a substrate comprising material of the substrate wherein a grouping of a plurality of projecting apexes extend from the projection, the projection further comprising a lateral dimension less than a lateral dimension of the substrate and the grouping of projecting apexes being positioned in sufficient proximity to one another to collectively engage a single conductive pad on a semiconductor substrate; has not been found.

The added limitation of multiple knife-edge lines either interconnecting or being positioned to form at least one polygon as mentioned in claims 42 and 44 have not been found.

The added limitation of the apexes in the shape of multiple knife-edge lines wherein the multiple knife-edge lines are positioned to form at least two polygons one of which is received entirely within the other as detailed in claims 43 and 49 have not been found.

The added limitation of the grouping of apexes being formed on the projection which is supported by another projection, the another projection extending directly from the substrate as detailed in claim 50 has not been found.

The added limitation of the apexes projecting from a common plane of the projection, the apexes having respective tips and bases, the bases of adjacent

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projecting apexes being spaced from one another to define a penetration stop plane therebetween as detailed in claim 51 has not been found.

The added limitation of the apexes projecting from a common plane of the projection, the apexes having respective tips and bases, the bases of adjacent projecting apexes being spaced from one another to define a penetration stop plane therebetween, the tips being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage as detailed in claim 52 has not been found.

The combination of limitations of an engagement probe comprising a substrate, a projection supported over the substrate and comprising material of the substrate, a grouping of a plurality of projecting apexes extending from the projection and positioned in sufficient proximity to one another to collectively engage a single conductive pad on a semiconductor substrate and the entirety of the projection being spaced from the substrate as described in claim 53 has not been found.

The combination of limitations of an engagement probe comprising a substrate, a projection supported over the substrate and comprising material of the substrate, a grouping of a plurality of projecting apexes extending from the projection and positioned in sufficient proximity to one another to collectively engage a single conductive pad on a semiconductor substrate, wherein the substrate of the probe comprises bulk silicon as detailed in claim 54 has not been found.

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It is further noted that the examiner's reasons are understood to be predicated upon consideration of each of the claims as a whole, and not upon any specific elements of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

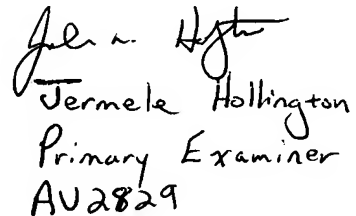
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963.

The Examiner's Supervisor, Nestor R. Ramirez, can be reached at (571) 272-2034.

For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert
Patent Examiner
Group Art Unit 2829
December 14, 2005



Jermele Hollington
Primary Examiner
AU2829